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ABSTRACT

Virtual learning environments (VLEs) are often perceived by education establishments as an opportunity to widen access without traditional overheads. An integral part of most VLEs is asynchronous computer conferencing and on-line moderators must help students migrate quickly to the new virtual environment to minimize learning disruption. This paper focuses on 21 new on-line moderators and reports their changing perceptions regarding their role and concerns, from their first appointment through to the end of the delivery of their first on-line course. The findings suggest that it is only after socialization occurs that information can be exchanged and lead to knowledge construction. These are supported by, and extend, prior research by Z. Berge, R. Mason, M. Paulsen and G.Salmon and are reinforced by empirical work with a further 19 new on-line moderators. (Contains 19 references, 2 tables, and 2 figures.) (Author)

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Does the medium dictate the message?

Cultivating e-communication in an asynchronous environment.

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Abstract

Virtual learning environments (VLEs) are often perceived by education establishments as an opportunity to widen access without traditional overheads. An integral part of most VLEs is asynchronous computer conferencing and on-line moderators must help students migrate quickly to the new virtual environment to minimize learning disruption. This paper focuses on 21 new on-line moderators and reports their changing perceptions re their role and concerns, from their first appointment through to the end of the delivery of their first on-line course. The findings suggest that it is only after socialization occurs that information can be exchanged and lead to knowledge construction. These are supported by, and extend, prior research by Z Berge, R Mason, M Paulsen and G Salmon and are reinforced by empirical work with a further 19 new on-line moderators.

1. INTRODUCTION

Virtual Learning Environments (VLE) are increasingly being used in education because they offer a potential solution to current academic problems of increasing student numbers within a climate of reduced funding. Whether they provide the solution is debatable however, it is only by recognising and fully utilising their potential that maximum effectiveness can be achieved [11] [16]. Computer conferencing is an essential part of VLEs [4]. It promises the ability for dispersed students to communicate with each other and experience the pedagogical techniques of collaborative learning and support. When learning moves on-line, students and tutors do not automatically adapt to the new medium [3] and for some people it can even provoke strong negative reactions [1]. Therefore, a cultural shift needs to take place and we "...must learn how to cultivate communication in a largely asynchronous environment." [5]. This will engender confidence in the new environment, for all participants, and enable effective learning to take place.

This paper follows 40 distance learning tutors during their first experiences as on-line conference moderators within an on-line course. It investigates how they adapt to the role of moderator and focuses on what they perceive as their role and reports on their concerns. Of these, 21 tutors provided the initial focus and further empirical work with 19 tutors, plus previous research in this area, reinforce those findings. Qualitative data is also drawn from students studying on their courses [7]. The results, in conjunction with an analysis of their concerns will enable us to improve the support and training we offer new on-line moderators.

2. PRIOR RESEARCH

Research into the role of an on-line conference moderator began in the mid 1980s and was articulated largely from a group of very experienced moderators. Robin Mason's seminal 1991 paper "Moderating Educational Computer Conferencing"[12] organised the skills required for effective moderation from several researchers [Kerr 1986, Davie and Palmer 1985, Brochet 1985. Feenberg 1986, Hiltz 1988, McCreary 1990. Davie 1989] into three key roles: Intellectual, Social and Organisational. Researchers worldwide cite this classification in their work (Berge 1995 (America) [3], Paulsen 1995 (Norway)[14], Salmon 1998 (UK) [17], Green 1998 (Canada) [8], Murphy & Collins 1998 (America) [13], Pearson 1999 (Australia) [15]).

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Further research in 1995 by Zane Berge and Morten Paulsen built on this work and related it to their native lands ie America and Norway. Their results supported and reinforced Mason's paper with one additional role being added by Berge, ie technical. She felt it was important that the moderator should help those new to conferencing to overcome the initial technical issues associated with going online and becoming familiar with new software.

Table 1: On-line moderator roles

CLASSIFICATION OF THE ROLE OF THE ON-LINE MODERATOR

Task	Researcher	Task	Researcher
Intellectual Role			
Facilitate	Mason 1990	Present conflicting opinions	Paulsen 1995
Summarise	Mason 1990	Respond to students comments and weave them together	Paulsen 1995
Support/Shape/Guide Discussions	Mason 1990		
Ask questions	Paulsen 1995	Make material relevant by developing questions and assignments that relate to student experiences and current affairs	Paulsen 1995
Don't reply on off-line materials	Paulsen 1995		
Explain	Paulsen 1995		
Social Role			
Create context conducive to thought	Berge 1995	Provide a good social environment	Mason 1990
Deter negativity	Berge 1995	Encourage good netiquette	Mason 1990
Encourage contributions	Berge 1995	Provide positive feedback on student input	Mason 1990
Mediate	Berge 1995	Reward positive contributions	Mason 1990
Encourage equal participation	Berge1995	Praise and model positive discussant behaviour	Mason 1990
Be sensitive to participants needs	Mason 1990	Discourage inappropriate material	Paulsen 1995
Organisational Role			
Set the Agenda: declare discussion objectives, state the timetable, state the decision-making norms, provide strong leadership and direction.	Berge 1995	Refer inappropriate digressions to another conference	Paulsen 1995
		Synchronise and resynchronise	Paulsen 1995
Move misplaced content	Paulsen 1995	Give a decisive end to each discussion	Paulsen 1995
Technical Role			
Make participants comfortable with the system			Berge 1995

Although it is ten years since Mason's original classification of an on-line moderator's role and five years since Berge and Paulsen's work, the roles and tasks identified are still cited today. The intellectual role is sometimes referred to as pedagogical and the organisation role, managerial. The tasks therein are the same and the original names have been used here for consistency. To provide a frame of reference for the research a matrix depicting the roles and tasks of on-line moderators identified by these researchers was compiled and is shown in Table 1. Although some of the tasks listed can be said to be subset of others, for example a facilitator does support and guide discussions, no attempt has been made to change the level of granularity to enable a more consistent matrix to be compiled.

Gilly Salmon's action research into on-line moderation introduces a five layer model of teaching and learning on-line through computer mediated communication which she invites us to explore and contextualise into our own discipline. The five layers are: access and motivation; online socialization; information exchange, knowledge construction and development. She summarises her model thus: " Stage One: Individual access and the ability of participants to use CMC are essential prerequisites for conference participation. Stage two involves individual participants establishing their online identities and then finding others with whom to interact. At stage three, participants give information relevant to the course and each other. Up to and including stage three, a form of co-operation occurs, ie support for each person's goals. At stage four, course-related group discussions occur and the interaction becomes more collaborative. At stage five, participants look for more benefits from the system to help them achieve personal goals, explore how to integrate CMC into other forms of learning and reflect on the learning process." [17]

3. BACKGROUND

1. The Course

The Open University in the UK piloted a pioneering on-line course during 1999 entitled 'You, Your Computer and the Net'. It is a first year degree module and it aims include:

1. introduce students to computers and the internet;
2. give students direct experience of working at a distance by themselves and as a group;
3. develop the new skills needed for studying and communicating using online media;

The course is web based and runs from the middle of February to the beginning of October. The main study material is delivered via the World Wide Web. The asynchronous text based conference facility is central to the delivery model with the primary computer conference being the tutor group ie the tutor and their students (15-20 members). Moderated by the tutor, it is the main area for course activities, discussions, and general chat. All tutor groups are within one of the 13 Open University regions and this research is based on one of those regions.

2. The Students

All Open University courses use distance learning and students enrol on that premise. They are part-time, usually mature and have other commitments ie work and/or family.

3. The Tutors

Student demand for the 2000 presentation of the course resulted in a large number of tutors being recruited. Two key attributes the interviewers were looking for was either a neutral or positive attitude towards the delivery of a course on-line plus the required underpinning skills and knowledge necessary for the academic content of the course. The 40 tutors who participated were over 30 years of age, predominantly male (76%) and had all tutored a distance learning course before. 61% were in the 41-50 age bracket and almost half are teachers/lecturers. None had used asynchronous conferencing as an integral part of a learning programme.

4. METHODOLOGY

To support new tutors there was a regional briefing day where each tutor met their mentor who they could go to for advice during their first year. Each mentor had tutored on the pilot year of the course. In order to track the new tutors changes in perceptions about their role as an on-line moderators a number of questions were administered at significant points throughout the course. These were at the beginning of the briefing day (November), before the course started (end January), mid course (end June) and at end of the course (October). The questions used to ascertain their perceptions and concerns were:

1. What are your perceptions of the role of an on-line moderator?
2. What concerns do you have about the role of an on-line moderator?

They were open ended because although responses are complex to analyse, if one offered them a list of tasks from the role/task matrix (Table 1) it could stop innovative thoughts and preclude new tasks being identified. The responses for the question 1 were compared to the moderator role/task matrix and any similarities/differences noted. A list detailed their concerns was also produced.

During the regional briefing day in November new tutors were put into groups and participated in a 30 minute session to experience the medium of text based narrow-band communication. No questionnaire was issued at this stage to allow any immediate changes in perception to dissipate. Between their regional briefing day and the start of the course an informal group conference was used to enable them to practice their skills. At the end of January, before the course started, tutors completed a second questionnaire without any reference to the first. It comprised their name and the two key questions given above. The third questionnaire was issued mid course and the final one just after the course was completed. The participants had no reference to their previous responses. Completed questionnaires were analyzed to identify what, if any, changes had occurred. The research was then extended to cover a further 19 new on-line moderators to reinforce, or otherwise, the original findings.

5. RESULTS

Tutor responses to the question "What are your perceptions of the role of an on-line moderator?", were examined and compared to the on-line moderator role/task matrix (Table 1). It was interesting to note that only two tasks mentioned by tutors did not map directly to one of these tasks, ie housekeeping and control. The statistical data gathered from the tutors provided evidence that as the course evolved so did their perception of their role (Figures 1 and 2).

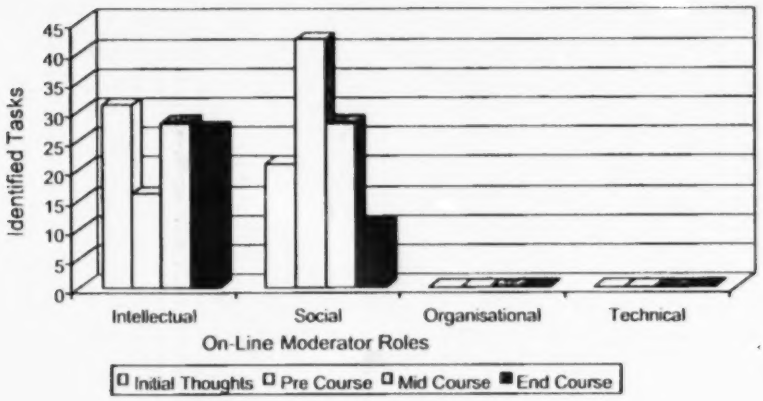

Figure 1: 21 new on-line moderators perception of their role at four key stages.

Initially they were concerned primarily with intellectual issues however, after a short submersion in an asynchronous environment there was a significant switch to social issues. It remained their focus two months later just before the start of the course and suggests that they became more concerned with the issue of ensuring that students adapt to the new environment. This concurs with one of the concerns identified for Internet based learning ie loss of social interaction.[5] [10]. As the course progressed the perceptions of 21 of the tutors implied that the importance of social issues decreased and by mid-course the balance between intellectual and social tasks equalized (Figure 1). The extended research with a further 19 tutors reinforced this pattern (Figure 2).

The end of course questionnaire was completed by all 40 tutors. It suggests that whereas the number of intellectual tasks almost returns to the original level when they were appointed to the role of an online moderator, the social tasks cited decreased. The following results from the four roles are drawn from the input of all 40 tutors and feedback from their students.

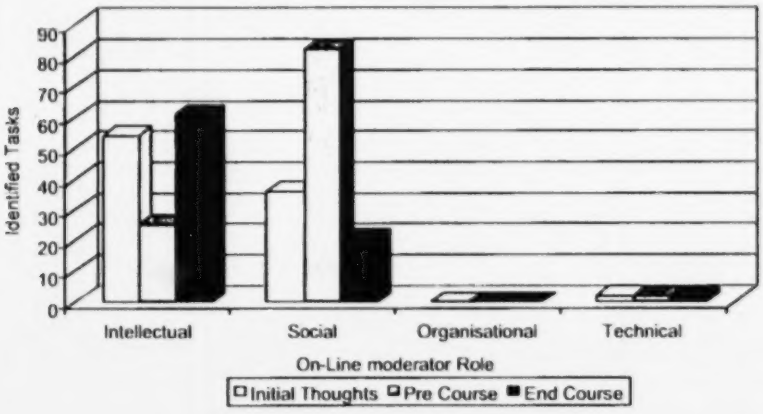

Figure 2: Extended research: A further 19 new on-line moderators perception of their role at three key stages

1. Intellectual Role

Four of the tasks under the intellectual role were mentioned (Table 1) ie explainer, facilitator, summarizer and to support/shape/guide discussions with the last task representing over 50% of the replies. All of the remaining tasks except one in the on-line moderator role/task matrix could be considered as a subset of these four. The exception was Paulsen's "don't reply to off-line materials".

2. Social Role

Their initial thoughts were that it was important to encourage contributions for everyone and, when required, they should mediate. After experiencing asynchronous conferencing the number of tutors citing these tasks increased significantly. Providing a good social environment, deter negativity, discourage inappropriate material, and to create context conducive to thought, were also

mentioned. Fewer tasks were identified mid course and by the end of the course only four tasks were cited: encourage contributions, ensure equal participation, deter negativity and mediation. It was interesting to note that tutors did not mention; be sensitive to participants needs, praise and model positive discussant behaviour, provide positive feedback on students' input and to reward positive contributions.

3. Organisational Role

No organisational tasks were mentioned, including; to provide the framework and rules within which the conference will operate [12]. This encompasses the activities, schedule and the requirements of the course. Perhaps this is because all of the module material is provided on the course web site. Housekeeping was mentioned, but does not appear on the role/task matrix in Table 1. It has not therefore been shown in Figure 2 but should be added upon update of the role/task matrix.

4. Technical Role

Only one on-line moderator cited this. The Open University offers a comprehensive computer support service for tutors and students. However, students still raised technical issues [7] as an area for concern and expected that the on-line moderator should solve them.

5. Areas of concern

Time became of increasing concern to 50% of all tutors by the end of the course. It took a lot longer than they had anticipated to assimilate messages and the responses took longer to compose because they were aware that the written word could be misinterpreted. As one student said, "Many people have problems not being able to articulate easily on-line". They stated that tutors must have superior written skills as body language and voice intonation do not apply [7].

Lack of experience of what the role of an on-line moderator was also a key area for concern. Although it decreased by the end of the course, the post-course student survey showed that some of the students were also unaware of what the role of an on-line moderator is. This is an area for future research.

Table 2: Concerns raised by 40 tutors as they adapted to their role as an on-line moderator.

Concerns of 40 Tutors.	Initial Thoughts	Pre Course	End Course	Category
How to control multithreading	0	2	0	Intellectual
Lack of visual clues	1	4	0	Social
Serve student needs	3	5	2	Social
How to encourage participation	8	5	3	Social
Becoming too involved	2	5	0	Social
When to intervene	7	6	0	Social
Censorship	4	3	0	Social
Impose own views	1	5	0	Social
Technical problems	1	1	0	Technical
Time	5	11	21	New
Cost	2	8	6	New
Lack of experience of what the role is	12	16	5	New
Students not be aware of moderator role	4	7	0	New
Not knowing all the answers	0	1	0	New
Total	**50**	**79**	**37**	

6. CONCLUSIONS

The results suggest that tutors new to moderating text based online computer conferences come with the preconception that their primary role is intellectual. However, even a short exposure to the medium raised many new social issues. These were still the overwhelming issues two months later just before the start of the course. As the course progressed and online socialization occurred, social and intellectual issues became of equal importance. At the end of the course social issues had decreased to below their initial level. The issue of gleaming information only from text without any visual and/or oral clues remained an issue, primarily from the students' viewpoint. Some students also expected technical help from online moderators whereas the moderators did not perceive this to be part of their role. There is a need to match the expectations of the online moderator and the students to avoid discontentment.

Stages two, three and four of Gilly Salmon's five layer model of teaching and learning online through CMC [17] ie that online socialization must take place before information can be exchanged and lead to knowledge construction, are also supported.. No data was available from this research to comment on stages one (access and motivation), or five (development) of her model.

Two key areas for on-line moderator concern were: time and lack of experience. Time became increasingly important as the course progressed. It took far longer than they had anticipated to compose new messages. This may partly answer some students concerns about feedback time. Lack of experience decreased as the course progressed however their knowledge is only based on experiential learning from one group of students on one course and from dialogue with colleagues.

Training and support for new on-line moderators must include on-line conferencing as an integral part of the process in order to cultivate the ability to confidently communicate by text. This will enable them to realize the importance of socialization before pedagogical issues can be fully addressed.

7. ACKNOWLEDGMENTS

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